

REMARKS

The Office action of 6 July 2007 (Paper No. 20070629) has been carefully considered.

The claims are not amended. Thus, claims 1 thru 21 are pending in the application.

Of all pending claims 1 thru 21, claims 1 thru 14 and 18 thru 20 are withdrawn from further consideration. Nevertheless, for the reasons previously stated during prosecution of this application, which are incorporated herein by reference thereto, it is respectfully submitted that a restriction requirement should not have been imposed in this application.

On page 2 of the Office action, the Examiner objected to claims 16 and 17 because they are labeled "Withdrawn". In this Amendment, claims 16 and 17 are labeled "Previously Presented". Thus, the objection no longer applies.

On page 2 of the Office action, the Examiner rejected claims 15 thru 17 and 21 under 35 U.S.C. §103 for alleged unpatentability over Burroughes *et al.*, British Patent Publication No. 2 349 979 in view of Winters *et al.*, U.S. Patent No. 6,737,800 and Park *et al.*, U.S. Patent Publication No. 2003/0193284. For the reasons stated below, it is submitted that the invention recited in the claims, as now amended, is distinguishable from the prior art cited by the Examiner so as to preclude rejection under 35 U.S.C. §103.

Initially, it should be noted that Park *et al.* '284 does not qualify as prior art under 35 U.S.C. §103(c)(1) which states:

“(c)(1) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.”

In the present case, not only is one of the inventors in the present application (Sang-Il Park) the first-named inventor of Park *et al.* '284, but also both this application and the Park *et al.* '284 reference were, at the time that the claimed invention was made, commonly owned by, or subject to an obligation of assignment to, Samsung SDI Co., Ltd. of Suwon-city, Korea, as indicated on the face of the Park *et al.* '284 publication document, and as indicated by the Assignment recorded in the U.S. Patent and Trademark Office on 30 August 2004, at Reel 015742, Frame 0126. Thus, Park *et al.* '284 is not a valid prior art reference against the present application.

Furthermore, independent claim 15 was previously amended to recite that each of the anode electrodes of the red, green and blue unit pixels includes a first film having a high reflectivity and forming a first anode, and a second film for adjusting a work function and forming a second anode. Furthermore, independent claim 15 was also amended to recite that the second anode of at least one unit pixel of the red, green and blue unit pixels has a thickness different from thicknesses of the second anodes of other unit pixels of the red, green and blue unit pixels. Finally, claim 15 was previously amended to recite that the first and second anode electrode materials are patterned by using photosensitive film patterns having thicknesses different from each other,

depending upon the red, green and blue unit pixels.

Dependent claims 16 and 17 were previously amended so that dependent claim 16 recites that the second anode of the red unit pixel is thicker than the second anodes of the other unit pixels, while claim 17 recites that a thickness of the second anode of the red unit pixel is in a range of one of 250 to 450Å and 700 to 750Å, that a thickness of the second anode of the green unit pixel is in a range of one of 50 to 150Å and 200 to 300Å, and that a thickness of the second anode of the blue unit pixel is in a range of 50 to 150Å.

It is respectfully submitted that, as a result of these amendments, the invention recited in independent claim 15 is distinguishable from the prior art cited by the Examiner so as to preclude rejection under 35 U.S.C. §103, while dependent claims 16 and 17 provide further bases for distinguishing the invention from the cited prior art.

Specifically, neither Burroughes *et al.* '979 nor Winters *et al.* '800 discloses or suggests a method for fabricating an organic electroluminescent display wherein: (1) etching of first and second anode electrode materials results in the formation of anode electrodes of the red, green and blue unit pixels, wherein each of the anode electrodes of the red, green and blue unit pixels includes a first film having a high reflectivity and a second film for adjusting a work function; (2) wherein the first and second films contained in the anode electrodes of the red, green and blue unit pixels form a first anode and a second anode, respectively, in the red, green and blue unit pixels; (3) wherein the second anode (or second films for adjusting a work function) of at least one unit pixel of the red, green and blue unit pixels has a thickness different from thicknesses of the second anodes (or second films for adjusting a work function) of other unit pixels of the

red, green and blue unit pixels; and (4) wherein the first and second anode electrode materials are patterned by using photosensitive film patterns having thicknesses different from each other, depending upon the red, green and blue unit pixels.

In the latter regard, it should be noted that, when anode electrodes having different thicknesses are formed, the effects of process simplification and yield improvement are produced, since an additional process is excluded. The cited art does not disclose or suggest this feature or the advantage thereof.

On page 2 of the Office action, the Examiner alleges that Burroughes *et al.* '979 discloses the disposition sequentially of a first anode material and a second anode material, followed by masking and etching the first and second anode materials to isolate and form anode electrodes of different pixels. However, in the sentence bridging pages 3 and 4 of the Office action, the Examiner admits that "Burroughes does not exemplify red, green and blue unit pixels (which is very well known in the art for multi-color display) and the second anode of at least one pixel having a thickness different from the thickness of the second anodes of other unit pixels of red, green and blue unit pixels" (quoting from page 3, last line-page 4, line 3 of the Office action). As a result, the Examiner cites Winters *et al.* '800 as allegedly disclosing "the thickness of the second anode electrode 112a in one pixel (red pixel) is different from the thicknesses of the second anodes 112b, 112c of other unit pixels of green and blue" (quoting from page 4, lines 10-12 of the Office action).

However, Winters *et al.* '800 does not disclose or suggest etching of first and second anode electrode materials to form anode electrodes. In fact, whereas Winters *et*

al. '800 states that the "thicknesses of the first transparent electrode 112 can then be reduced in the region of other pixel colors by well known photolithography and etching processes" (quoting from column 18, line 67-column 19, line 1 of the patent), Winters *et al.* '800 also states that "[i]t is an object of the present invention that the layers of the organic EL media 120 not require any patterning between and around the pixels, and therefore these layers cannot be varied in thickness for different color pixels ... [and] only the thickness of the first transparent electrode is varied for pixels of different colors" (emphasis supplied -- quoting from column 18, lines 50-56 of the patent). This indicates that only the first transparent electrodes 112a, 112b and 112c (the "second anode electrode" according to the Examiner's analysis at page 3, line 18 of the final Office action) are subjected to etching in Winters *et al.* '800, and that the other electrodes, including the reflective layer 102 (the "first anode electrode" according to the Examiner's analysis at page 3, lines 17-18 of the final Office action), are not subjected to etching.

Thus, Winters *et al.* '800 does not disclose or suggest the etching of first and second anode electrode materials to form anode electrodes, each including a first film having a high reflectivity and a second film for adjusting a work function, as recited in claim 15. Therefore, it cannot be said that Winters *et al.* '800 discloses the method recited in independent claim 15. Accordingly, even if the two cited references are combined, the invention of claim 15 is not obtained. Furthermore, it is highly doubtful that one of ordinary skill in the art, upon reviewing the disclosure of Burroughes *et al.* '979, would be motivated or instructed to seek and obtain the disclosure of Winters *et al.* '800 so as to modify the disclosure of Burroughes *et al.* '979 in an effort to obtain the claimed invention. It is respectfully submitted that the only reason that the Examiner has

been able to arrive at the combination of the two references is that the Examiner, unlike one of ordinary skill in the art as of the date of the invention, has had the benefit of reviewing the disclosure of the present application, and has utilized the knowledge gained from the disclosure of the present application in order to arrive at the combination of references cited under 35 U.S.C. §103.

In the first complete paragraph on page 5 of the Office action, the Examiner admits that Burroughes *et al.* '979 and Winters *et al.* '800 "are silent about the first and second anode materials patterned by using photosensitive film patterns having thicknesses different from each other depending upon the red, green and blue unit pixels" (quoting from page 5, lines 4-7 of the Office action). However, as indicated above, this is not correct.

Specifically, Winters *et al.* '800 is not "silent" as to patterning of the first and second anode materials, and is not silent as to a difference between the respective thicknesses of the first and second anode materials. In fact, as stated above, Winters *et al.* '800 states (at column 18, lines 50-56 of the patent) that an object of the invention of the patent is that there not be any requirement for "patterning between and around the pixels", that the layers not "be varied in thickness for different color pixels", and that "only the thickness of the first transparent electrode" be "varied for pixels of different colors" (emphasis supplied -- *see* column 18, lines 50-56 of Winters *et al.* '800). Thus, Winters *et al.* '800 not only addresses the subject of patterning and thickness, it teaches away from patterning of both the first and second anode electrode materials, and it also teaches away from patterning by using photosensitive film patterns having thicknesses different from each other, depending upon red, green and blue unit pixels, as recited in

independent claim 15.

Thus, one of ordinary skill in the art, upon reviewing the disclosures of Burroughes *et al.* '979 and Winters *et al.* '800, would not be motivated to seek the disclosure of Park *et al.* '284 in order to obtain the invention. It is respectfully submitted that the only reason that the Examiner has been able to arrive at the combination of the three references is that the Examiner, unlike one of ordinary skill in the art as of the date of the invention, has had the benefit of reviewing the disclosure of the present application, and has utilized the knowledge gained from the disclosure of the present application in order to arrive at the combination of references cited under 35 U.S.C. §103. More importantly, as stated above, Park *et al.* '284 is not a valid prior art reference under 35 U.S.C. §103(c)(1). Thus, a rejection under 35 U.S.C. §103 based on these three references is inappropriate.

As mentioned above, dependent claims 16 and 17 provide further bases for distinguishing the invention from the cited prior art. That is to say, none of the references discloses or suggests a second anode (or second film) of the red unit pixel being thicker than the second anode (or second films) of the other unit pixels, as recited in dependent claim 16. In that regard, on page 4 (lines 13-14) of the final Office action, the Examiner contends that Winters *et al.* '800 discloses that film 112a is thicker than the other films in Figure 3, but it is not clear that the film 112a of Winters *et al.* '800 corresponds to a red pixel.

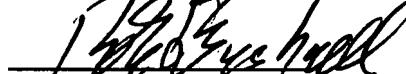
Furthermore, none of the references, either alone or in combination, discloses or suggests the method wherein a thickness of the second anode (or second film) of the red

unit pixel is in a range of one of the two ranges specifically recited in claim 17, wherein a thickness of the second anode (or second film) of the green unit pixel is in a range of one of the two recited ranges, and wherein a thickness of the second anode (or second film) of the blue unit pixel is in the recited range, as also specifically recited in claim 17.

In view of the above, it is submitted that the claims of this application are in condition for allowance, and early issuance thereof is solicited. Should any questions remain unresolved, the Examiner is requested to telephone Applicants' attorney.

No fee is incurred by this Response.

Respectfully submitted,



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